## Exhibit B Budget Details

Direct Labor, Unloaded Hourly Rates

Title / Job Classification	Maximum Rate to be Billed* (\$ / Hr)	Number of Hours	PIER Share	Match Share	Total Cost
Engr./Sci./Specialist 8 (Dr. Lawrence Y.C.Leong)	\$70.35	16	1,126	0	\$ 1,126
Engr./Sci./Specialist 6 (Dr. Ganesh Rajagopalan, PI)	\$50.75	424	17,660	3,864	\$ 21,524
Engr./Sci./Specialist 3 (Travis Coburn)	\$36.46	110	4,010	0	\$ 4,010
Project Administrator (Susan Penney)	\$23.96	22	527	0	\$ 527
Administrative Asst. (Jackie Warric) \$22.70		28	28 456		\$ 637
		Total Direct Labor	\$ 23,779	\$ 4,046	\$ 27,825

<sup>\*</sup> Maximum salary rates are caps: PIER will not reimburse at a higher rate over the term of the project.

Fringe Benefits

Thinge Deficits					
Title / Job Classification	Maximum % Rate to be Billed*	Base (Typically Total Direct Labor)	PIER Share	Match Share	Total Cost
Engr./Sci./Specialist 8 (Dr. Lawrence Y.C.Leong)	61.0%	\$1,126	\$687	\$0	\$687
Engr./Sci./Specialist 6 (Dr. Ganesh Rajagopalan, PI)	61.0%	\$21,524	\$10,773	\$2,357	\$13,130
Engr./Sci./Specialist 3 (Travis Coburn)	61.0%	\$4,010	\$2,446	\$0	\$2,446
Project Administrator (Susan Penney)	61.0%	\$527	\$322	\$0	\$322
Administrative Asst. (Jackie Warric)	61.0%	\$637	\$278	\$111	\$389
	7	otal Fringe Benefits	\$ 14.505	\$ 2.468	\$ 16.973

<sup>\*</sup> Maximum fringe benefit rates are caps: PIER will not reimburse at a higher rate over the term of the project.

## Travel\*\*

ITAVEI								
Location	Purpose	Number of Trips	People per Trip	PII	ER Share*	Match Sh	are	Total Cost
Sacramento	Kick-off/CPR Review/Final Mtg	3	1	\$	1,500	\$	-	\$ 1,500
Somerset, NJ & Lewisburg, PA	Laboratory Studies Using LACSD Sludge	2	1	\$	1,200	\$	2,000	\$ 3,200
LACSD (Carson, CA)	Field Demonstration at LACSD	1	3	\$	6,550	\$	-	\$ 6,550
LACSD (Carson, CA)	Field demo for 5 weeks	30	1	\$	945	\$	-	\$ 945
			Total Travel	\$	10,195	\$	2,000	\$ 12,195

<sup>\*</sup> PIER Share: Travel is reimbursed at State rates. Higher travel costs can count as Match Share.

Equipment					
Item	Quantity	Unit Cost	PIER Share	Match Share	Total Cost
LACSD (Centrifuges, etc.)	2 Centrifuge for 5 weeks	\$3500/week	\$ -	\$ 35,000	\$ 35,000
		\$ -	\$ -	\$ -	\$ -
		Total Equipment	\$ -	\$ 35,000	\$ 35,000

Materials, Supplies

Item	Quantity/Pounds	Unit Cost Per Pound	PIER Share	Match Share	Total Cost	
Alumina	1,667	\$ 1.20	\$ 2,000		\$ 2,000	
Polymer	1,143	\$ 3.50	\$ 4,000		\$ 4,000	
Ferric Chloride	1,667	\$ 1.20	\$ 2,000		\$ 2,000	
Other Reagents	2,222	\$ 0.90	\$ 2,000	\$ -	\$ 2,000	
Modified Bentonite	833	\$ 1.20	\$ 1,000		\$ 1,000	
Nano Silica	500	\$ 4.00	\$ 2,000	\$ -	\$ 2,000	
Laboratory facility rental at LACSD				\$ 15,000	\$ 15,000	
	\$ 13,000	\$ 15,000	\$ 28,000			

## Contractual

<sup>\*\*</sup> Trips listed as "to be determined (TBD)" require advanced written approval from Commission Project Manager.



Subcontractor Name	Purpose	PIER Share		Match Share		Total Cost	
NEI Corporation	To design and synthesize nanomaterials for study & field demo assistance	\$	75,000	\$	27,000	\$	102,000
	To perform bench-scale study to evaluate performance & field demo						
Bucknell University	assistance	\$	75,000	\$	70,000	\$	145,000
Southern Cal. Edison	Method Validation	\$	12,000	\$	-	\$	12,000
	Total Contractual	\$	162,000	\$	97,000	\$	259,000

Miscellaneous									
Item	Purpose	PIER Share	Match Share	Total Cost					
Stationery, delivery and postage	Document production, Communication	\$ 1,527	\$ -	\$ 1,527					
	Total Miscellaneous	\$ 1,527	\$ -	\$ 1,527					

Overhead										
Name of Overhead	Overhead Base*	Maximum % Rate to be Billed**		Base Cost		PIER Share		Match Share		Total Cost
G&A on Labor	Total Direct Labor and Fringes	147.0%	\$	44,798	\$	56,278	\$	9,575	\$	65,853
Other Direct Costs	Total Operating Expenses	10%	\$	322,000	\$	18,672	\$	9,900	\$	28,572
				Total Overhead	\$	74,950	\$	19,475	\$	94,425

<sup>\*</sup> Base: Define cost categories used to charge Overhead rate, e.g., Total Labor, Total Direct Cost, Materials, Subcontracts, etc.

<sup>\*\*</sup> Maximum Indirect Overhead rates are caps: PIER will not reimburse at higher rates over the term of the project.